

Reply under 37 CFR 1.116 – Expedited Procedure - Technology Center 2874

Application No. 10/081,995	Art Unit 2874
Docket No. 03-21; ACT 179 DN 51965	Examiner Kevin S. Wood

REMARKS

Claims 1-11 and 14-22 are pending in the application, of which claims 1-10 and 14-21 are allowed. Claims 11 and 22 stand finally rejected. Claim 22 has been amended above to provide a clearer antecedent basis for the diffraction filter. Claims 11 and 22 have been amended above to recite additional aspects of Applicants' invention. Applicants respectfully request entry of the above amendments, because such amendments place the application in condition for allowance and are responsive to rejections newly raised in the instant office action. It is believed that entry of the above claim amendments requires only a cursory review by the Examiner, because the allowability of such claims has already been indicated during the interview, as set forth below.

STATEMENT UNDER 1.113(b)

The undersigned representative would like to thank the Examiner for the courtesy of the telephone interview of March 2, 2004, especially the Examiner's willingness to conduct the interview during the initial call to request an interview.

The rejections of claims 11 and 22 were discussed during the interview, and agreement was reached that the above claim amendments would overcome the current rejections under 35 U.S.C. 112 and 35 U.S.C. 102. The arguments made by the undersigned representative during the telephone interview are incorporated below under the section headings "REJECTIONS UNDER 35 U.S.C. 112" and "REJECTIONS UNDER 35 U.S.C. 102".

REJECTIONS UNDER 35 U.S.C. 112

Applicants note with appreciation the Examiner's removal of the previous 112 rejections of the drawings.

Claim 22 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Office Action states that there is insufficient antecedent basis for the term "the diffraction filter". Applicants have amended claim 22 to

replace the word “filter” with “grating”. Accordingly, Applicants understand that the rejection of claim 22 under 35 U.S.C. 112 is overcome and respectfully request that the rejection be withdrawn.

REJECTIONS UNDER 35 U.S.C. 102

Claims 11 and 22 stand rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 5,208,882 to Strasser et al. Applicant has amended claim 11 to recite “a waveguide comprising an upper surface and a lower surface, the upper surface comprising a vertically tapered portion and a non-vertically tapered portion; and a diffraction grating disposed on the upper surface at the non-vertically tapered portion, ... the substrate disposed adjacent to the lower surface of the waveguide.” Support for the amendment of claim 11 can be found in the specification at least at paragraph [0140].

Claim 22 has been amended to recite “a waveguide comprising an upper surface and a lower surface, the upper surface comprising a taper surface that provides a vertical taper to the waveguide; and a diffraction grating disposed on the taper surface, ... the substrate disposed adjacent to the lower surface of the waveguide.” Support for the amendment of claim 22 can be found in the specification at least at paragraph [0145].

In contrast, Strasser discloses a tapered portion overlaying a grating. (Abstract. See also column 3, line 61- column 4, line 25.) Strasser discloses that the substrate has a grating and that the waveguide film is disposed over the grating/substrate. (Column 3, lines 52-64.) Strasser discloses that the tapered portion is disposed over the grating so that an incident beam diffracted off the grating can interact with the tapered portion of the guiding film in order to change the angular acceptance of the grating coupler:

An incident beam 18 is diffracted off the grating 12 at the interface of the waveguide 14 and substrate 10. The diffracted beam undergoes total internal reflection off the tapered portion of the guiding film 12. The taper changes the propagation angle within the waveguide such that upon leaving the tapered region, the beam is traveling at the correct propagation angle for the guided mode.

The taper changes the angular acceptance of the grating coupler 12 through two effects. The first effect is that a beam diffracted from the grating undergoes different numbers of bounces off the taper, depending on the

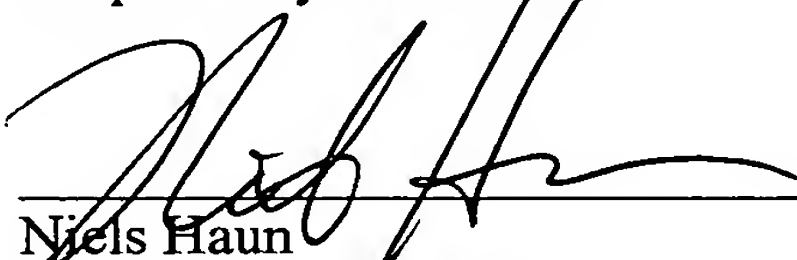
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diffraction angle. Because each bounce changes the propagation angle in the waveguide, bouncing can be used to compensate for the changes in propagation angle with incidence angle. (Column 4, lines 3-19.)

Therefore, Strasser does not disclose Applicants' claimed feature of "a waveguide comprising an upper surface, ... and a diffraction grating disposed on the upper surface ..." as recited in claim 11. Likewise Strasser does not disclose Applicants' claimed feature of "a waveguide comprising an upper surface..., the upper surface comprising a taper surface ... and a diffraction grating disposed on the taper surface..." as recited in claim 22. Thus, for at least these reasons, Applicants respectfully request that the rejections of claims 11 and 22 be withdrawn.

In view of the foregoing amendments and remarks, it is believed that the claims in this application are now in condition for allowance. Early and favorable reconsideration is respectfully requested. The Examiner is invited to telephone the undersigned in the event that a telephone interview will advance prosecution of this application.

Respectfully submitted,



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